



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/872,532	06/01/2001	Daniel J. McGurran	56763USA2A.002	3298

32692 7590 02/28/2007
3M INNOVATIVE PROPERTIES COMPANY
PO BOX 33427
ST. PAUL, MN 55133-3427

EXAMINER

TARAZANO, DONALD LAWRENCE

ART UNIT	PAPER NUMBER
----------	--------------

1773

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
3 MONTHS	02/28/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 02/28/2007.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

LegalUSDocketing@mmm.com
LegalDocketing@mmm.com

Office Action Summary

Application No.

09/872,532

Applicant(s)

MCGURRAN ET AL.

Examiner

D. Lawrence Tarazano

Art Unit

1773

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12/07/2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,10,11,13-19 and 21-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 10, 11, 13-19, 21-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

2. Claims 1, 2, 10, 11, 13-19, 21-27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

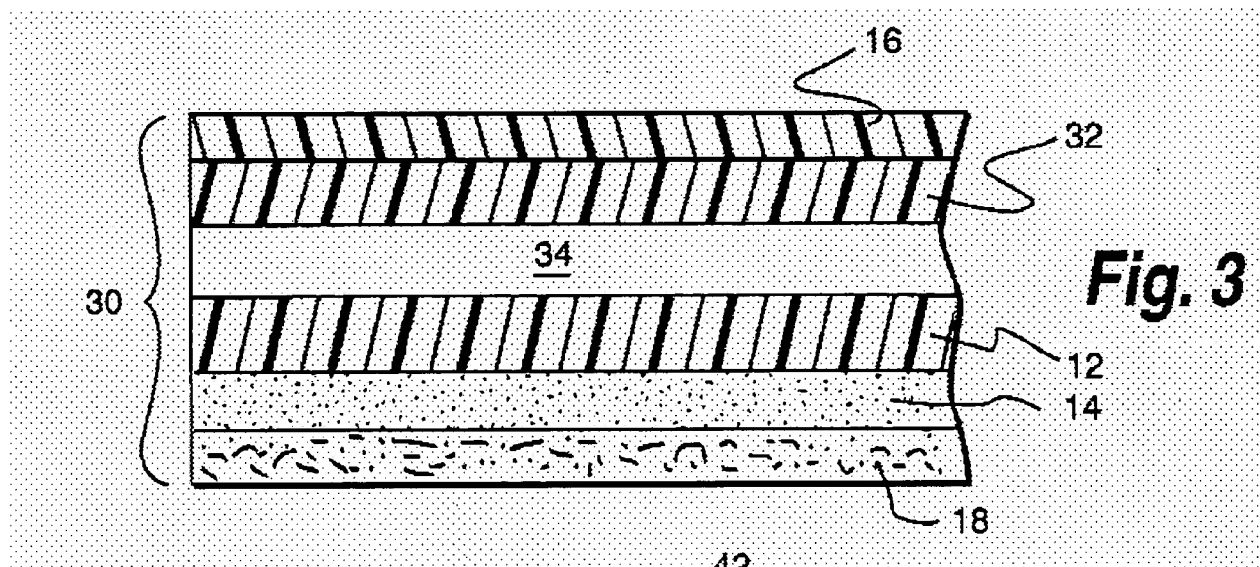
3. The applicants claim the limitation "exhibits a transmission of light within a wavelength band of 400nm – 700 nm of from 5% to 90%. For a point of clarity, does this mean that over the range of 400 to 700 nanometers that the transmission of light is within the range of 5%-90%?

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 2, 10, 11, 13-19, 21-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Enniss et al. US 2006/0003158 or 6,440,551 (having an effective filing date of June 14, 1999) alone or in view of Oliver et al (4,634,637) or Marks et al. (3,298,959).
6. Enniss et al. teach laminate film structures, which comprise layers containing pigments and layers containing dyes so that the over all color of the film is improved [006].



7. These Structures contain a film layer, which is colored with blue and red dyes (12) and a color matching layer (14) which contains a pigment [0029], wherein the a gray composite results.

8. The pigment may be in the adhesive layer (14) or in an additional film layer (e.g. 32) [0034].

9. The films have will have haze values of less than 25%, preferably not greater than 5% (printing error in the pre-grant publication [0035], see 6,440,551 for evidence of content; column 6, line 8).

10. The film layers are made of thermoplastic resins such as polyester [0021].

11. The pigments have particle size of less than about 10 microns. Preferably less than about 0.5 microns [0026] and can be virtually any pigment that satisfies the criteria of the invention, wherein the size of the pigments is directly related to the amount of haze. Small pigment particles produce less haze [0027].

12. The film have a^* and b^* values within the values of -5 to 5 as claimed see Example 1.

Art Unit: 1773

Given the teachings of Enniss et al., it would have been obvious to one having ordinary skill in the art to arrive at a film having the claimed properties. They clearly teach how to use dyes and pigments in the same films, how to produce films having low haze, etc... The amount of pigment and dye would be directly related to the blocking desired.

13. Regarding the degree of transmission within a waveband of interest in the visible spectrum of 5% to 90%, based on the materials used and the construction of the film, taking into consideration the use of the film, the film would have this property.

14. Regarding the use of carbon black, this is an old pigment, which gives a gray color. It would have been obvious to use carbon black in the structure described by Enniss et al, as it is a stable black pigment. The examiner relies upon Marks et al. (figure 2) and Oliver et al. (column 3, lines 55+) to show that carbon black is conventionally used in optical films as a pigment resulting in a gray film. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have used carbon black as a pigment to produce gray structure.

15. Regarding claim 17, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have placed the dye and pigments in the same layer as opposed to two separate layers as this would reduce the number of separate layers need and make a more economical film.

16. Regarding claims 22 and 23, given that these claims are generic to any dye that can be polymerized with the polymer, the examiner takes the position that the applicants are taking the position that polymerizing dyes in the polymer structure is of ordinary skill in the art. It would have been obvious to one having ordinary skill in the art at the time the invention was made to

Art Unit: 1773

have used dyes having polymerizable groups, as they would become permanently part of the structure.

17. Regarding claims 26 and 27, polyester films are conventionally cast and oriented to make them thinner and stronger. It would have been obvious to orient the polyester films taught by Enniss et al. to produce thinner, stronger films.

Response to Arguments

1. Applicant's arguments filed 12/07/2006 have been fully considered but they are not persuasive. The applicants argue that the prior art starts with a dyed film layer and adds pigments to that layer in contrast the applicants start with a pigmented layer and add dye to it. While this may be true, the end result is that both contain both pigment and dye. This is what is required by the article claims; the exact process used to produce it has not been shown to result in a materially different product, none has this process been claimed.

18. The applicant argues that the combination in the prior art does not arrive at a neutral gray color, but the examiner disagrees. These Structures contain a film layer, which is colored with blue and red dyes (12) and a color matching layer (14) which contains a pigment [0029], wherein the a gray composite results. The result shows that an effective amount is present.

19. Regarding claim 13, the applicants state that the product has an adjusted color of (15.15) and this is outside of the range of 15 claimed. The examiner notes that 15 as written with no additional significant figures, include values between about 14.5 and 15.5 (clear from any general chemistry or physics text book; see "Chemistry" pages 19-21). Additionally, the applicants have not set forth any experimental error ranges. This is an experimentally

Art Unit: 1773

determined value and given the way it has been reported one cannot argue that the difference in the values is significant.

Regarding claims 26 and 27, the use of carbon black for the purpose of making gray films is known in the art. The modification to the films would have been obvious to one having ordinary skill in the art.

Conclusion

2. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to D. Lawrence Tarazano whose telephone number is (571)-272-1515. The examiner can normally be reached on 8:30 to 6:00 (off every other Friday).

Art Unit: 1773

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney can be reached on (571)-272-1284. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

D. Lawrence Tarazano
Primary Examiner
Art Unit 1773

A handwritten signature in black ink, appearing to be 'D. Lawrence Tarazano', written in a cursive style.